

IN THE CLAIMS

1. (Previously Presented) A process for separating a mixture of SF₆ and N₂, the SF₆/N₂ mixture being obtained from a gas insulated line, comprising introducing the mixture to a mobile membrane separator comprising at least one separating membrane which preferentially passes N₂, collecting an SF₆ enriched retentate, and forming an N₂ enriched permeate, wherein said mixture has an initial SF₆ content of from 5 to 50 volume-%, said at least one membrane comprises a polymer matrix composed of a polycarbonate made from a bisphenol in which at least 25% of the bisphenol units in the polymer chain are tetrahalogenated with chlorine or bromine, and said mixture is fed to said membrane separator at a membrane feed pressure of 10 to 13 bar.

2. (Cancelled)

3. (Previously Presented) A process according to claim 1, wherein said membrane separator comprising at least one separating membrane comprises at least two separating membrane stages.

4. (Previously Presented) A process according to claim 3, wherein said membrane separator comprising at least two separating membrane stages comprises three separating membrane stages, the retentate of the first membrane stage is fed to the second membrane stage in order to obtain a mixture with a high SF₆ content as retentate from the second membrane stage; the permeate of the first membrane stage is introduced into the third membrane stage; the permeate of the second membrane stage and the retentate of the third membrane stage are recirculated to the feed stream of the first membrane stage,

and the permeate of the third membrane stage can be released into the environment.

5. (Currently Amended) A process according to claim 1, wherein the process is utilized during the use of the gas insulated line to purify ~~[[a]] the SF_6/N_2 mixture, of SF_6 and N_2 .~~

6. (Previously Presented) A process according to claim 1, wherein the process is utilized after completed use of the gas insulated line in order to recover SF_6 prior to disposal of the used gas insulated line.

7. (Previously Presented) A system comprising a gas insulated line, a membrane separation stage comprising at least one separating membrane which preferentially passes N_2 , and at least one connecting line directly connecting the gas insulated line to the membrane separation stage, wherein said membrane separation stage is a mobile membrane separation apparatus, wherein said gas insulated line contains a mixture of SF_6 and N_2 with an initial SF_6 content of from 5 to 50 volume-%, and wherein said at least one connecting line delivers the mixture to said membrane separation stage at a membrane feed pressure of 10 to 13 bar.

8. (Previously Presented) A system according to claim 7, wherein said at least one separating membrane comprising a polymer matrix composed of a polycarbonate made from a bisphenol in which at least 25% of the bisphenol units in the polymer chain are tetrahalogenated with chlorine or bromine.

9. (Previously Presented) A system according to claim 7, further comprising a pump or compressor on said connecting line for moving a gas mixture from said gas insulated line to said membrane separation stage.

10. (Previously Presented) A method according to claim 1, wherein said N₂ enriched permeate comprises at least about 97% by volume nitrogen.

11. (Previously Presented) A method according to claim 10, wherein said N₂ enriched permeate comprises at least about 99% by volume nitrogen.

12. (Previously Presented) A method according to claim 1, wherein said SF₆ enriched retentate comprises at least about 95% by volume sulfur hexafluoride.

13. (Previously Presented) A method according to claim 1, further comprising discharging said N₂ enriched permeate directly to the atmosphere.

14. (Currently Amended) A ~~method~~ system according to claim 7, further comprising a discharge line connected to said membrane separation stage to discharge ~~discharging~~ said N₂ enriched permeate directly to the atmosphere.